

We claim:

1. A metered dose Inhaler having part or all of its internal surfaces coated with one or more fluorocarbon polymers, optionally in combination with one or more non-fluorocarbon polymers, for dispensing an inhalation drug formulation comprising beclomethasone dipropionate or a physiologically acceptable solvate thereof, and a fluorocarbon propellant, optionally in combination with one or more other pharmacologically active agents or one or more excipients.
2. An inhaler according to Claim 1 containing said drug formulation.
3. An inhaler according to Claim 2 wherein said drug formulation further comprises a surfactant.
4. An inhaler according to Claim 2 or Claim 3 wherein said drug formulation further comprises a polar cosolvent.
5. An inhaler according to claim 2 wherein said drug formulation comprises 0.01 to 5 % w/w based on the weight of propellant of a polar cosolvent, which formulation is substantially free of surfactant.
6. An inhaler according to Claim 4 or Claim 5, wherein the polar cosolvent is ethanol.
7. An inhaler according to any one of Claims 2 to 6, wherein said drug formulation comprises beclomethasone dipropionate or a physiologically acceptable solvate thereof in combination with salmeterol or salbutamol or a physiologically acceptable salt thereof.
8. An inhaler according to Claim 2, wherein said drug formulation comprises
 - (a) beclomethasone dipropionate monohydrate, the particle size of substantially all the monohydrate being less than 20 microns;
 - (b) at least 0.15% by weight of the formulation of water in addition to the water of crystallisation associated with the monohydrate; and

(c) a fluorocarbon propellant.

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9. An inhaler according to Claim 8, wherein the formulation further comprises 0.05 to 3% w/w based on the propellant of a polar cosolvent.
10. An inhaler according to Claim 9, wherein the polar cosolvent is ethanol.
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11. An inhaler according to Claim 2, wherein said drug formulation consists essentially of beclomethasone dipropionate or a physiologically acceptable solvate thereof, optionally in combination with one or more other pharmacologically active agents, a fluorocarbon propellant and 0.01 to 5 % w/w based on the propellant of a polar cosolvent, which formulation is substantially free of surfactant.
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12. An inhaler according to any one of Claims 2 to 11, wherein the fluorocarbon propellant is 1,1,1,2-tetrafluoroethane or 1,1,1,2,3,3,3-heptafluoro-n-propane or mixtures thereof.
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13. An inhaler according to Claim 12, wherein the fluorocarbon propellant is 1,1,1,2-tetrafluoroethane.
14. An inhaler according to any one of claims 1 to 13 comprising a can made of metal wherein part or all of the internal metallic surfaces are coated.
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15. An inhaler according to Claim 14 wherein the metal is aluminium or an alloy thereof.
16. An inhaler according to any one of Claims 1 to 15, wherein said fluorocarbon polymer is a perfluorocarbon polymer.
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17. An inhaler according to Claim 16 wherein said fluorocarbon polymer is selected from PTFE, PFA, FEP and mixtures thereof.

18. An inhaler according to any one of Claims 1 to 17, wherein said fluorocarbon polymer is in combination with a non-fluorocarbon polymer selected from polyamideimide and polyethersulphone.

5 19. An inhaler according to any one of Claims 1 to 18 comprising a substantially ellipsoidal base.

10 20. A metered dose inhaler system comprising a metered dose inhaler according to any one of Claim 1 to 19 fitted into suitable channelling device for oral or nasal inhalation of the drug formulation.

21. Use of a metered dose inhaler system according to Claim 20 for the treatment of respiratory disorders.

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